Data Limitations and Validation Report

Lockheed Idaho Technologies

SDG 93052416

Argonne National Laboratory - West

Semivolatile Organic Compounds

Three Aqueous Samples

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3-5-96

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TABLE OF CONTENTS

1.0 INTRODUCTION

The Argonne National Laboratory - West sample set for Case No. 93052416, SDG 93052416 consists of three aqueous samples analyzed for Target Compound List (TCL) semivolatile organic compounds. All analyses were conducted using SW-846 Method 8270 analytical and reporting protocols. The analyses were performed by the Biospherics Laboratory using the protocols outlined in the ANL-West SOW. The data were reported as a Level IV analysis. A Level A review was performed on the samples contained in this SDG. A total of 192 sample data points were reported in this analytical data set.

The analytical data from these analyses were reviewed by HALLIBURTON NUS Corporation personnel in accordance with ERP Standard Operating Procedure SMO-SOP-12.1.3.

2.0 QUALITY CONTROL SUMMARY

The data were evaluated based on the following parameters:

	Data Completeness
	Holding Times
	GC/MS Tuning and Mass Calibration
	Continuing Calibrations
*	Blank Analyses
	Surrogate Spike Recoveries
	Matrix Spike/Matrix Spike Duplicate Results
	Internal Standards Performance
	System Performance and Detection Limits
*	Compound Identification
*	Compound Quantitation

The asterisk indicates that all quality control criteria were met for this parameter. Problem areas affecting data usability are discussed in Section 4.0 of this report. A Glossary of Data Validation Flags which defines the validation qualifiers applied on a sample-specific basis is presented in Section 6.0.

3.0 DATA COMPLETENESS

The data presented in Case No. 93052416, SDG 93052416 consists of semivolatile organic results for three (3) aqueous samples as follows:

MW-11(93052416-3) EBR-II No. 1(93052416-1) EBR-II No.2(93052416-2)

The data package was incomplete as submitted. Chain of custody forms were not provided. Initial calibration Form VIs and their corresponding DFTPP Form Vs were not contained in the data package. A semivolatile DFTPP instrument performance check Form V was not provided for the calibration performed on 06/10/93. Presentation and documentation of the data package deliverables were extremely poor. The data package does not conform to a Level A deliverable. Notable omissions of forms include: missing extraction dates on Form Is for environmental samples, missing units on Form Is, sample wt/vol, etc., and an illegible continuing calibration from 06/03/93. No contact with the laboratory was required to complete the validation of this package.

4.0 SUMMARY OF DATA USABILITY

It should be noted that a chain of custody form for the samples contained in this SDG was not provided. Furthermore, the date of extraction was not provided on the laboratory Form I's for all three samples. Therefore, holding time noncompliances could not be evaluated for the samples in this SDG.

The continuing calibration from 06/03/93 does not contain Relative Response Factors and Percent Differences for all TCL semivolatile compounds. Therefore, the sample EBR-II No. 1(93052416-1), that was analyzed under this continuing calibration was not evaluated for calibration noncompliances.

Continuing calibration Percent Differences (%Ds) greater than 50% quality control limit were reported for indeno(1,2,3-cd)pyrene, dibenz(a,h)anthracene and benzo(g,h,i)perylene. Positive and nondetected results are affected by this noncompliance. As a result, nondetected results for the aforementioned compounds were qualified as estimated, (UJ), in the affected samples.

Several compounds had continuing calibration %Ds greater than 25% reported. No action was taken since no positive results were reported for these compounds in the affected samples, and nondetected results are not compromised by these noncompliances.

It should be noted that the laboratory incorrectly reported the surrogate recoveries on the Form II for all the samples listed. This includes MW-11(93052416-3), EBR-II No. 1(93052416-1), EBR-II No.2(93052416-2) and a laboratory blank. The correct recoveries were obtained from the raw data and the Form II was amended.

Sample MW-11(93052416-3) had a zero percent recovery reported for the surrogate 2-Fluorophenol. As a result, of this severe noncompliance, nondetected results for the acid-fraction compounds in sample MW-11(93052416-3) were considered unreliable and were rejected, (R).

The Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses of sample EBR-II No. 2 yielded high Percent Recoveries (%Rs) for pyrene. Positive results only are affected by this noncompliance. No action was taken since only nondetected results were reported for this compound in the unspiked sample.

It should be noted that the laboratory inadvertently failed to report internal standard areas on the Form VIII for the three environmental samples in this SDG. Internal Standard Check Reports were found in the raw data, and are submitted in the support documentation. However, the 12 hour standard and upper/lower limits were reported incorrectly. Based on the raw data, the data reviewer has amended the appropriate forms.

Sample MW-11(93052416-3) had a poor recovery reported for the internal standard perylene-d12. As a result, nondetected results quantitated by perylene-d12 were qualified as estimated, (UJ).

Annotated laboratory Form I data summary reports showing the data and relevant qualifier flags applied are presented in Appendix A of this report. Copies of the unqualified data summary reports as reported by the laboratory are provided in the attached Appendix B. The attached Appendix C includes documentation to support the findings discussed in this report.

TABLE 1

LOCKHEED IDAHO TECHNOLOGIES

Case No. 93052416, SDG 93052416

SEMIVOLATILE ORGANIC COMPOUNDS

Sample No.	Qualifier Flags
MW-11(93052416-3)	J[1,2] R[1]
EBR-II No. 1(93052416-1)	
EBR-II No.2(93052416-2)	J[1]

See Section 6.0 Glossary of Data Validation Flags for qualifier flag definitions.

A sample-specific summary of the data validation flags applied is depicted in Table 1, appearing on the previous page. The qualifier flags used as a result of the validation process are defined in Section 6.0 (Glossary of Data Validation Flags) of this report. Details regarding the application of the validation qualifiers are discussed in the remainder of this section.

4.1 Holding Times

It should be noted that a chain of custody form for the samples contained in this SDG was not provided. Furthermore, the date of extraction was not provided on the laboratory Form I's for all three samples. Therefore, holding time noncompliances could not be evaluated for the samples in this SDG.

4.2 Calibrations

Initial calibrations from 05/24/93 and 05/27/93 were not provided in the data package. The continuing calibration from 06/03/93 does not contain Relative Response Factors and Percent Differences for all TCL semivolatile compounds. Therefore, the sample EBR-II No 1(93052416-1,) that was analyzed under this continuing calibration was not evaluated for calibration noncompliances. The inconsistent presentation and lack of data compromises the calibration assessment.

The continuing calibration performed on instrument GC/MS #4 (06/10/93) at 00:49 contained the following %Ds which failed to meet the 50% quality control criterion:

Compound	%D
Indeno(1,2,3-cd)pyrene	66.2
Dibenz(a,h)anthracene	67.2
Benzo(g,h,i)perylene	70.4

Affected Samples: EBR-II No.2(93052416-2), MW-11(93052416-3)

Nondetected results for the aforementioned compounds were qualified as estimated, (UJ), in the affected samples.

The continuing calibration performed on instrument GC/MS #4 (06/10/93) at 00:49 contained the following %Ds which failed to meet the 25% quality control criterion:

Compound	%D
Bis(2-chloroethyl)ether	25.7
4-Nitrophenol	31.5
Benzidine	35.0
Bis(2-ethylhexyl)phthalate	48.6
Benzo(b)fluoranthene	42.1
Benzo(k)fluoranthene	34.5

Affected Samples: EBR-II No.2(93052416-2), MW-11(93052416-3)

No actions were necessary for the aforementioned compounds since no positive results were reported, in the affected samples.

4.3 Surrogate Recoveries

It should be noted that the laboratory incorrectly reported the surrogate recoveries on the Form II for the samples contained in this SDG. The correct recoveries were obtained from the raw data and the Form II was amended.

Sample MW-11 had a zero percent recovery reported for the surrogate 2-Fluorophenol. As a result, of this severe noncompliance, nondetected results for the acid-fraction compounds in sample MW-11 were considered unreliable and were rejected, (R).

4.4 Matrix Spike/Matrix Spike Duplicate Results

The MS/MSD analyses of sample EBR-II No. 2 yielded high %Rs for pyrene. Positive results only are affected by this noncompliance. No action was taken since only nondetected results were reported for this compound in the unspiked sample.

4.5 Internal Standard Areas

It should be noted that the laboratory inadvertently failed to report internal standard areas on the Form VIII's three samples in this SDG. Internal Standard Check Reports were found in the raw data, and are submitted in the support documentation. However, the 12 hour standard and upper/lower limits were reported incorrectly. Based on the raw data, the data reviewer has amended the appropriate forms.

Sample MW-11 had a poor recovery reported for the internal standard perylene-d12. As a result, nondetected results quantitated by perylene-d12 were qualified as estimated, (UJ).

4.7 Additional Comments

It should be noted that the detection limits on the laboratory Form Is may be incorrect. The detection limits may be low by a factor of two since only 500 ml were extracted instead of the method indicated amount of 1000 ml.

5.0 SUMMARY OF LABORATORY PERFORMANCE

Chain of custody forms and laboratory Form Vs and VIs were not contained in the data package. A semivolatile DFTPP instrument performance check Form V was not provided for the calibration performed on 06/10/93. Also, the laboratory Form I;s for the environmental samples were not completed. A continuing calibration Form VII was unreadable and did not contain all the necessary information. Continuing calibration %Ds greater than 50% quality control limit were reported for indeno(1,2,3-cd)pyrene, dibenz(a,h)anthracene and benzo(g,h,i)perylene. Several compounds had continuing calibration %Ds greater than 25% reported. Sample MW-11 had a zero percent recovery reported for the surrogate 2-Fluorophenol. Sample MW-11 had a poor recovery reported for the internal standard perylene-d12.

The overall documentation and completeness of the data package deliverables were extremely poor. The inadequate presentation of the information in this package has compromised the validation review.

6.0 GLOSSARY OF DATA VALIDATION FLAGS

The following data validation flags were applied to the sample data for reasons detailed previously in this report:

J^1 - Accept data, but qualify nondetected results for indeno(1,2,3-cd)pyrene, dibenz(a,h)anthracene and benzo(g,h,i)perylene as estimated, (UJ), as a result of a continuing calibration %D greater than 50%.

J^2 - Accept data, but qualify nondetected results quantitated by the internal standard perylene-d12 as estimated, (UJ), as a result of a poor internal standard area.

R^1 - Reject, (R), nondetected results for the acid-fraction compounds as a result of an extremely poor surrogate %R for 2-fluorophenol.

7.0 REFERENCES

The data referenced in this report were validated in accordance with the protocols outlined in ERP Standard Operating Procedure SMO-SOP-12.1.3 as presented in ERP-SOW-37. In addition, details stipulating laboratory procedures as outlined in the ANL-West SOW were referenced.

APPENDIX A

QUALIFIED LABORATORY RESULTS

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NUMBER: EBR II NO1

Lab Name: BIOSPHERICS INCORPORATED Contract: ARGONNE

Lab Code: 93052416 Case No.: 93052416 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 93052416-1

Sample wt/vol: _____ (g/mL) _____ Lab File ID: _____

Level: (low/med) LOW Date Received: 05/24/93

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: _____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 06/03/93

Injection Volume: _____ (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) _____ pH: _____

ACB 2-28-96

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	NR	
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	50	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	50	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	50	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	50	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethylphthalate	50	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	50	U
		10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NUMBER: EBR II NO1

Lab Name: BIOSPHERICS INCORPORATED Contract: ARGONNE

Lab Code: 93052416 Case No.: 93052416 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 93052416-1

Sample wt/vol: _____ (g/mL) _____ Lab File ID: _____

Level: (low/med) LOW Date Received: 05/24/93

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: _____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 06/03/93

Injection Volume: _____ (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) _____ pH: _____

AMB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-chlorophenyl-phenylether	10	U
86-73-7	Fluorene		NR
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole		NR
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NUMBER: EBR II NO2

Lab Name: BIOSPHERICS INCORPORATED Contract: ARGONNE

Lab Code: 93052416 Case No.: 93052416 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 93052416-2

Sample wt/vol: _____ (g/mL) _____ Lab File ID: _____

Level: (low/med) LOW Date Received: 05/24/93

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: _____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 06/10/93

Injection Volume: _____ (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) _____ pH: _____

AKP 2/28/94

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	NR	
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	50	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	50	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	50	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NUMBER: EBR II NO2

Lab Name: BIOSPHERICS INCORPORATED Contract: ARGONNE

Lab Code: 93052416 Case No.: 93052416 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 93052416-2

Sample wt/vol: _____ (g/mL) _____ Lab File ID: _____

Level: (low/med) LOW Date Received: 05/24/93

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: _____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 06/03/93

Injection Volume: _____ (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) _____ pH: _____

NVB 2-28-94

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline		NR
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	50	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	10	U
85-01-8	Phenanthrene	50	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate		NR
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	20	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U UJ
191-24-2	Benzo(g,h,i)perylene	10	U UJ
		10	U UJ

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NUMBER: MW-11

Lab Name: BIOSPHERICS INCORPORATED Contract: ARGONNE

Lab Code: 93052416 Case No.: 93052416 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 93052416-3

Sample wt/vol: _____ (g/mL) _____ Lab File ID: _____

Level: (low/med) LOW Date Received: 05/24/93

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: _____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 06/10/93

Injection Volume: _____ (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) _____ pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L
108-95-2	Phenol	10 U R
111-44-4	bis(2-Chloroethyl)ether	10 U
95-57-8	2-Chlorophenol	10 U R
541-73-1	1,3-Dichlorobenzene	10 U
106-46-7	1,4-Dichlorobenzene	10 U
95-50-1	1,2-Dichlorobenzene	10 U
95-48-7	2-Methylphenol	10 U R
108-60-1	2,2'-oxybis(1-Chloropropane)	NR
106-44-5	4-Methylphenol	10 U R
621-64-7	N-Nitroso-di-n-propylamine	10 U
67-72-1	Hexachloroethane	10 U
98-95-3	Nitrobenzene	10 U
78-59-1	Isophorone	10 U
88-75-5	2-Nitrophenol	10 U R
105-67-9	2,4-Dimethylphenol	50 U R
111-91-1	bis(2-Chloroethoxy)methane	10 U
120-83-2	2,4-Dichlorophenol	50 U R
120-82-1	1,2,4-Trichlorobenzene	10 U
91-20-3	Naphthalene	10 U
106-47-8	4-Chloroaniline	50 U
87-68-3	Hexachlorobutadiene	10 U
59-50-7	4-Chloro-3-methylphenol	50 U R
91-57-6	2-Methylnaphthalene	10 U
77-47-4	Hexachlorocyclopentadiene	10 U
88-06-2	2,4,6-Trichlorophenol	10 U R
95-95-4	2,4,5-Trichlorophenol	10 U R
91-58-7	2-Chloronaphthalene	10 U
88-74-4	2-Nitroaniline	50 U
131-11-3	Dimethylphthalate	10 U
208-96-8	Acenaphthylene	10 U
606-20-2	2,6-Dinitrotoluene	10 U
99-09-2	3-Nitroaniline	50 U
83-32-9	Acenaphthene	10 U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NUMBER: MW-11

Lab Name: BIOSPHERICS INCORPORATED Contract: ARGONNE

Lab Code: 93052416 Case No.: 93052416 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 93052416-3

Sample wt/vol: _____ (g/mL) _____ Lab File ID: _____

Level: (low/med) LOW Date Received: 05/24/16

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: _____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 06/03/93

Injection Volume: _____ (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) _____ pH: _____

ARB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50	U R
100-02-7	4-Nitrophenol	50	U R
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-chlorophenyl-phenylether	10	U
86-73-7	Fluorene		NR
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U R
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U R
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole		NR
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U UJ
205-99-2	Benzo(b)fluoranthene	10	U UJ
207-08-9	Benzo(k)fluoranthene	10	U UJ
50-32-8	Benzo(a)pyrene	10	U UJ
193-39-5	Indeno(1,2,3-cd)pyrene	10	U UJ
53-70-3	Dibenz(a,h)anthracene	10	U UJ
191-24-2	Benzo(g,h,i)perylene	10	U UJ

(1) - Cannot be separated from Diphenylamine